Internet of Things and Domain Names

What for?
I think I broke your stereotype.
What is IoT? It is simply!

We have things!

We have Internets!
IoT - not simply

**Database**
- Repository that stores the important data sets

**External interfaces**
- APIs, SDKs and gateways that act as interfaces for 3rd party systems (e.g., ERP, CRM)

**Analytics**
- Algorithms for advanced calculations and machine learning

**Additional tools**
- Further development tools (e.g., app prototyping, access management, reporting)

**Data visualization**
- Graphical depiction of (real-time) sensor data

**Processing & action management**
- Rule engine that allows for (real-time) actions based on incoming sensor & device data

**Device management**
- Backend tool for the management of device status, remote software deployment and updates

**Connectivity & Normalization**
- Agents and libraries that ensure constant object connectivity and harmonized data formats
The Real Internet Thing

TRIT has:

1. The newest interface of NB-IoT

2. Microcontroller with the following characteristics:

   CPU 20MHz
   RAM 32 KB
IoT - for example

Sensors
- Temperature
- Humidity
- Light
- Ultrasound
- IR, RF
- Metal Sensor
- Compass
- Accelerometer
- Gyroscope

Memory mapped IO
- RFID, GSM

Microcontroller
- eg: 8051, 16F84, ATMega 168, 68HC11

Input
- Switch
- Keypad
- Timer

Controllers
- Actuators
- Relays
- Switches
- PWM

Notification
- LED
- Buzzer

Display Unit
- 7 Segment Display, LCD, Graphic Display
Internet of Things need DNS
Domain names must be very short! 1-2-3-4 letters
Domain names can be meaningless
these are machine names
How many domain names?

For 1 letter -> 26

For 2 letters -> 676

For 3 letters -> 17,576

For 4 letters -> 456,976
Klimarev Mikhail
klimarev@gmail.com
Telegram: @klimarev
FB: https://www.facebook.com/michael.klimarev/

https://t.me/zatelecom
in addition
Задача

Создать систему Internet of Things для городской среды